



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,425	07/24/2003	Rebecca S. Wulliman	7110D	9842
7590	10/19/2005		EXAMINER	
Johns Manville Corporation Intellectual Property (R21D) 10100 West Ute Avenue Littleton, CO 80127			MATZEK, MATTHEW D	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/626,425	WULLIMAN ET AL.
	Examiner Matthew D. Matzek	Art Unit 1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 August 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 20-25,35-37,41-66 and 73-97 is/are pending in the application.  
 4a) Of the above claim(s) 41-66 and 84-94 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 20-25,35-37,73-80 and 95-97 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. In the Amendment filed 8/4/2005 Applicant has canceled claims 1 to 19, 26 to 34, 38 to 40 and 67 to 72. Claims 41 to 66 and 81 to 94 have been withdrawn from consideration. New claims 95 to 97 have been considered and entered into the Record. They contain no new matter. Claims 20 to 25, 35 to 37, 73 to 80 and 95 to 97 are under consideration. All prior art rejections have been withdrawn due to amendment.

***Response to Arguments***

2. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

1. Claims 20-21, 23-25, 73-74 and 79 are rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a), as obvious under Forsten et al. (US Patent 6,312,561).

a. Forsten et al. disclose a sheet composition with certain proportions of meta-aramids used as a flame barrier composition (Abstract). The flame barrier composition of the applied invention is a combination of meta-aramid fibrils, floc, mica, and polymeric binder and forms a flexible sheet or paper (col. 1, lines 53-65). Examiner equates this paper to Applicant's burn through and flame propagation resistant paper. The applied patent teaches that it would be advantageous to apply a moisture blocking material layer to the surface of the barrier composition such as a fluoropolymer. The moisture blocking material layer may be in the form of a coating (col. 2, lines 48-57).

b. Figure 2 shows the flame barrier composition layer **24** adjacently overlaying sound and thermal insulative material **26** such as glass wool, aramid batting, and the like (col. 2, line 64 – col. 3, line 3). The Examiner takes the position that the glass wool is the same as glass fiber. The entire composition, flame barrier composition sheet, insulative material and fluoropolymer, may be placed in a bag of protective polymeric film. The bagging film may be made of any film forming polymeric material including polyester, polyvinyl fluoride (PVF), and polyimide. Table 1 provides for a polyimide film of 0.025mm (0.98 mils). As the polyimide film of the applied art anticipates the composition and thickness of the instantly claimed article the polyimide film necessarily possesses the instantly claimed basis weight and water vapor permeability. The flexible barrier sheet/paper may be adhered to the bagging film to provide increased tear

resistance (col. 2, line 58 – col. 1, line 5). The flame barrier composition is to comprise between 40 and 75 weight percent mica (col. 2, lines 30-35).

c. Claims 73 and 74 stand rejected as the applied article does not require the fluoropolymer moisture blocking material layer thereby anticipating the limitations instantly set forth.

***Claim Rejections - 35 USC § 103***

2. Claims 35-37, 75 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsten et al. (6,312,561).

a. Claims 35-36 and 78 are rejected as it would have been obvious to one of ordinary skill in the art to coated the second major surface of the laminated sheet with a film of PVF or polyimide. The skilled artisan would have been motivated by the teaching of Forsten et al. of providing additional puncture, structural and water protection for the laminated sheet by surrounding it with a protective polymeric film (claim 2 and col. 2, lines 58-67).

b. The applied article is silent as to the basis weight of the fluorocarbon coating layer. However, it would have obvious to one having ordinary skill in the art at the time the invention was made to have made the fluorocarbon coating layer between 20 and 100 g/m<sup>2</sup>, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Claim 37 stands rejected.

c. The applied article is silent as to the basis weight of the PVF coating layer. However, it would have obvious to one having ordinary skill in the art at the time the

invention was made to have made the PVF coating layer between 20 and 100 g/m<sup>2</sup>, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Claim 75 stands rejected.

2. Claims 76-77, 95-96 are rejected under 35 U.S.C. 103(a) as obvious over Forsten et al. (6,312,561) in view of Eddy (US 5,788,184). The invention of Forsten et al. is silent as to the use of reinforcing scrim as a means of increasing the puncture and tear resistance of the laminated sheet.

a. Eddy discloses a flexible aircraft fuselage insulation blanket (Abstract). Figure 3d displays an outer polymeric film 52, thermal and acoustical insulation material 56, and reinforcing scrim 54. The most preferred textile reinforcement is an interlaced yarn structure comprising a continuous multifilament yarn woven scrim fabric and a non-interlaced yarn reinforced in-situ structure (col. 16, lines 34-38).

b. Since Forsten et al. and Eddy are from the same field of endeavor, (i.e. insulative blankets), the purpose disclosed by Eddy would have been recognized in the pertinent art of Forsten et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the article of Forsten et al. to include a reinforcing scrim between the PVF layer and the burn resistant paper to increase the puncture and tear resistance of the laminated sheet. The skilled artisan would have been motivated by the desire to increase the puncture and tear resistance of the laminated sheet. Forsten et

al. teaches the desire for increased puncture and tear resistance of the laminated sheet (col. 2, lines 65-67).

d. The applied article is silent as to the basis weight of the PVF coating layer. However, it would have obvious to one having ordinary skill in the art at the time the invention was made to have made the PVF coating layer between 20 and 100 g/m<sup>2</sup>, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Claim 77 stands rejected.

3. Claim 22, 80 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsten et al. (6,312,561) as applied to claims 20, 73 and 76 and further in view of Hill et al. (US 4,874,648). The invention of Forsten et al. is silent as to the use of polyimide foam for use as a lightweight, flexible, thermal and acoustical insulation material.

a. Hill et al. disclose a method of making high efficiency, flame resistant polyimide foam insulation (Abstract).

b. Since Forsten et al. and Hill et al. are from the same field of endeavor, (i.e. flame resistant insulation), the purpose disclosed by Hill et al. would have been recognized in the pertinent art of Forsten et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used the polyimide foam insulation as the lightweight, flexible, thermal and acoustical insulation in the invention of Forsten et al. The skilled artisan would have been motivated by polyimide foam's excellent insulative and flame

Art Unit: 1771

resistant properties. Polyimide foams also do not emit toxic gases when exposed to direct flames (col. 1, lines 23-29, Hill et al.).

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm

*MSM*

*NORCA TORRES*  
NORCA TORRES  
PRIMARY EXAMINER